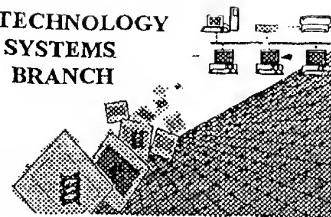


BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/665,460
Source: QIPE
Date Processed by STIC: 10/7/2003

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/2003):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crýstal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/2003



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003

TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
 Output Set: N:\CRF4\10062003\J665460.raw

3 <110> APPLICANT: Freyssinet, Georges
 4 Rang, Cecile
 5 Frutos, Roger
 7 <120> TITLE OF INVENTION: Pepsin-sensitive modified Bacillus thuringiensis
 insecticidal
 8 toxin
 10 <130> FILE REFERENCE: A35992-PCT-USA-A (072667.0191)
 OK > 12 <140> CURRENT APPLICATION NUMBER: US/10/665,460
 C > 13 <141> CURRENT FILING DATE: 2003-09-19
 15 <150> PRIOR APPLICATION NUMBER: PCT/FR02/00772
 W--> 16 <151> PRIOR FILING DATE: March 4, 2002 2002-03-04 <use this date format
 18 <150> PRIOR APPLICATION NUMBER: FR 01/03691
 W--> 19 <151> PRIOR FILING DATE: March 19, 2001 2001-03-19 ✓ *Do Not Comply*
 21 <160> NUMBER OF SEQ ID NOS: 160
 23 <170> SOFTWARE: PatentIn Ver. 2.1
see pp 1,3,5,7,9,11
Corrected Diskette Needed

ERRORED SEQUENCES

529 <210> SEQ ID NO: 4
 530 <211> LENGTH: 673
 531 <212> TYPE: PRT
 532 <213> ORGANISM: Artificial sequence
 W--> 533 <220> FEATURE:
 533 <223> OTHER INFORMATION: Artificial sequence description: Cry9Cal Leu-164
 OK > 535 <400> SEQUENCE: 4
 536 Met Asn Arg Asn Asn Gln Asn Glu Tyr Glu Ile Ile Asp Ala Pro His
 537 1 5 10 15
 539 Cys Gly Cys Pro Ser Asp Asp Asp Val Arg Tyr Pro Leu Ala Ser Asp
 540 20 25 30
 542 Pro Asn Ala Ala Leu Gln Asn Met Asn Tyr Lys Asp Tyr Leu Gln Met
 543 35 40 45
 545 Thr Asp Glu Asp Tyr Thr Asp Ser Tyr Ile Asn Pro Ser Leu Ser Ile
 546 50 55 60
 548 Ser Gly Arg Asp Ala Val Gln Thr Ala Leu Thr Val Val Gly Arg Ile
 549 65 70 75 80
 551 Leu Gly Ala Leu Gly Val Pro Phe Ser Gly Gln Ile Val Ser Phe Tyr
 552 85 90 95
 554 Gln Phe Leu Leu Asn Thr Leu Trp Pro Val Asn Asp Thr Ala Ile Trp
 555 100 105 110
 557 Glu Ala Phe Met Arg Gln Val Glu Glu Leu Val Asn Gln Gln Ile Thr
 558 115 120 125
 560 Glu Phe Ala Arg Asn Gln Ala Leu Ala Arg Leu Gln Gly Leu Gly Asp
 561 130 135 140

insert this mandatory numeric
 identifier whenever <221>, <222>, or
 <223>
 is shown
 see 1.823
 of Sequence
 Rules

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003

TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
 Output Set: N:\CRF4\10062003\J665460.raw

563 Ser Phe Asn Val Tyr Gln Arg Ser Leu Gln Asn Trp Leu Ala Asp Arg
 564 145 150 155 160
 566 Asn Asp Thr Leu Asn Leu Ser Val Val Arg Ala Gln Phe Ile Ala Leu
 567 165 170 175
 569 Asp Leu Asp Phe Val Asn Ala Ile Pro Leu Phe Ala Val Asn Gly Gln
 570 180 185 190
 572 Gln Val Pro Leu Leu Ser Val Tyr Ala Gln Ala Val Asn Leu His Leu
 573 195 200 205
 575 Leu Leu Leu Lys Asp Ala Ser Leu Phe Gly Glu Gly Trp Gly Phe Thr
 576 210 215 220
 578 Gln Gly Glu Ile Ser Thr Tyr Tyr Asp Arg Gln Leu Glu Leu Thr Ala
 579 225 230 235 240
 581 Lys Tyr Thr Asn Tyr Cys Glu Thr Trp Tyr Asn Thr Gly Leu Asp Arg
 582 245 250 255
 584 Leu Arg Gly Thr Asn Thr Glu Ser Trp Leu Arg Tyr His Gln Phe Arg
 585 260 265 270
 587 Arg Glu Met Thr Leu Val Val Leu Asp Val Val Ala Leu Phe Pro Tyr
 588 275 280 285
 590 Tyr Asp Val Arg Leu Tyr Pro Thr Gly Ser Asn Pro Gln Leu Thr Arg
 591 290 295 300
 593 Glu Val Tyr Thr Asp Pro Ile Val Phe Asn Pro Pro Ala Asn Val Gly
 594 305 310 315 320
 596 Leu Cys Arg Arg Trp Gly Thr Asn Pro Tyr Asn Thr Phe Ser Glu Leu
 597 325 330 335
 599 Glu Asn Ala Phe Ile Arg Pro Pro His Leu Phe Asp Arg Leu Asn Ser
 600 340 345 350
 602 Leu Thr Ile Ser Ser Asn Arg Phe Pro Val Ser Ser Asn Phe Met Asp
 603 355 360 365
 605 Tyr Trp Ser Gly His Thr Leu Arg Arg Ser Tyr Leu Asn Asp Ser Ala
 606 370 375 380
 608 Val Gln Glu Asp Ser Tyr Gly Leu Ile Thr Thr Arg Ala Thr Ile
 609 385 390 395 400
 611 Asn Pro Gly Val Asp Gly Thr Asn Arg Ile Glu Ser Thr Ala Val Asp
 612 405 410 415
 614 Phe Arg Ser Ala Leu Ile Gly Ile Tyr Gly Val Asn Arg Ala Ser Phe
 615 420 425 430
 617 Val Pro Gly Gly Leu Phe Asn Gly Thr Thr Ser Pro Ala Asn Gly Gly
 618 435 440 445
 620 Cys Arg Asp Leu Tyr Asp Thr Asn Asp Glu Leu Pro Pro Asp Glu Ser
 621 450 455 460
 623 Thr Gly Ser Ser Thr His Arg Leu Ser His Val Thr Phe Phe Ser Phe
 624 465 470 475 480
 626 Gln Thr Asn Gln Ala Gly Ser Ile Ala Asn Ala Gly Ser Val Pro Thr
 627 485 490 495
 629 Tyr Val Trp Thr Arg Arg Asp Val Asp Leu Asn Asn Thr Ile Thr Pro
 630 500 505 510
 632 Asn Arg Ile Thr Gln Leu Pro Leu Val Lys Ala Ser Ala Pro Val Ser
 633 515 520 525
 635 Gly Thr Thr Val Leu Lys Gly Pro Gly Phe Thr Gly Gly Ile Leu

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003

TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
 Output Set: N:\CRF4\10062003\J665460.raw

636	530	535	540
638	Arg Arg Thr Thr Asn Gly Thr Phe Gly Thr Leu Arg Val Thr Val Asn		
639	545	550	555
641	Ser Pro Leu Thr Gln Gln Tyr Arg Leu Arg Val Arg Phe Ala Ser Thr		560
642	565	570	575
644	Gly Asn Phe Ser Ile Arg Val Leu Arg Gly Gly Val Ser Ile Gly Asp		
645	580	585	590
647	Val Arg Leu Gly Ser Thr Met Asn Arg Gly Gln Glu Leu Thr Tyr Glu		
648	595	600	605
650	Ser Phe Phe Thr Arg Glu Phe Thr Thr Gly Pro Phe Asn Pro Pro		
651	610	615	620
653	Phe Thr Phe Thr Gln Ala Gln Glu Ile Leu Thr Val Asn Ala Glu Gly		
654	625	630	635
656	Val Ser Thr Gly Gly Glu Tyr Tyr Ile Asp Arg Ile Glu Ile Val Pro		640
657	645	650	655
659	Val Asn Pro Ala Arg Glu Ala Glu Glu Asp Leu Glu Ala Ala Lys Lys		
660	660	665	670

662 Ala

852 <210> SEQ ID NO: 6

853 <211> LENGTH: 673

854 <212> TYPE: PRT

855 <213> ORGANISM: Artificial sequence

w--> 856 <220> FEATURE: *same lnu as p-1*

856 <223> OTHER INFORMATION: Artificial sequence description: Cry9Ca1 Phe-164

858 <400> SEQUENCE: 6

859	Met Asn Arg Asn Asn Gln Asn Glu Tyr Ile Ile Asp Ala Pro His		
860	1	5	10
861			15
862	Cys Gly Cys Pro Ser Asp Asp Asp Val Arg Tyr Pro Leu Ala Ser Asp		
863	20	25	30
864			
865	Pro Asn Ala Ala Leu Gln Asn Met Asn Tyr Lys Asp Tyr Leu Gln Met		
866	35	40	45
867			
868	Thr Asp Glu Asp Tyr Thr Asp Ser Tyr Ile Asn Pro Ser Leu Ser Ile		
869	50	55	60
870			
871	Ser Gly Arg Asp Ala Val Gln Thr Ala Leu Thr Val Val Gly Arg Ile		
872	65	70	75
873			80
874	Leu Gly Ala Leu Gly Val Pro Phe Ser Gly Gln Ile Val Ser Phe Tyr		
875	85	90	95
876			
877	Gln Phe Leu Leu Asn Thr Leu Trp Pro Val Asn Asp Thr Ala Ile Trp		
878	100	105	110
879			
880	Glu Ala Phe Met Arg Gln Val Glu Glu Leu Val Asn Gln Gln Ile Thr		
881	115	120	125
882			
883	Glu Phe Ala Arg Asn Gln Ala Leu Ala Arg Leu Gln Gly Leu Gly Asp		
884	130	135	140
885			
886	Ser Phe Asn Val Tyr Gln Arg Ser Leu Gln Asn Trp Leu Ala Asp Arg		
887	145	150	155
888			160
889	Asn Asp Thr Phe Asn Leu Ser Val Val Arg Ala Gln Phe Ile Ala Leu		
890	165	170	175
891			
892	Asp Leu Asp Phe Val Asn Ala Ile Pro Leu Phe Ala Val Asn Gly Gln		
893	180	185	190

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003

TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
 Output Set: N:\CRF4\10062003\J665460.raw

895 Gln Val Pro Leu Leu Ser Val Tyr Ala Gln Ala Val Asn Leu His Leu
 896 195 200 205
 898 Leu Leu Leu Lys Asp Ala Ser Leu Phe Gly Glu Gly Trp Gly Phe Thr
 899 210 215 220
 901 Gln Gly Glu Ile Ser Thr Tyr Tyr Asp Arg Gln Leu Glu Leu Thr Ala
 902 225 230 235 240
 904 Lys Tyr Thr Asn Tyr Cys Glu Thr Trp Tyr Asn Thr Gly Leu Asp Arg
 905 245 250 255
 907 Leu Arg Gly Thr Asn Thr Glu Ser Trp Leu Arg Tyr His Gln Phe Arg
 908 260 265 270
 910 Arg Glu Met Thr Leu Val Val Leu Asp Val Val Ala Leu Phe Pro Tyr
 911 275 280 285
 913 Tyr Asp Val Arg Leu Tyr Pro Thr Gly Ser Asn Pro Gln Leu Thr Arg
 914 290 295 300
 916 Glu Val Tyr Thr Asp Pro Ile Val Phe Asn Pro Pro Ala Asn Val Gly
 917 305 310 315 320
 919 Leu Cys Arg Arg Trp Gly Thr Asn Pro Tyr Asn Thr Phe Ser Glu Leu
 920 325 330 335
 922 Glu Asn Ala Phe Ile Arg Pro Pro His Leu Phe Asp Arg Leu Asn Ser
 923 340 345 350
 925 Leu Thr Ile Ser Ser Asn Arg Phe Pro Val Ser Ser Asn Phe Met Asp
 926 355 360 365
 928 Tyr Trp Ser Gly His Thr Leu Arg Arg Ser Tyr Leu Asn Asp Ser Ala
 929 370 375 380
 931 Val Gln Glu Asp Ser Tyr Gly Leu Ile Thr Thr Arg Ala Thr Ile
 932 385 390 395 400
 934 Asn Pro Gly Val Asp Gly Thr Asn Arg Ile Glu Ser Thr Ala Val Asp
 935 405 410 415
 937 Phe Arg Ser Ala Leu Ile Gly Ile Tyr Gly Val Asn Arg Ala Ser Phe
 938 420 425 430
 940 Val Pro Gly Gly Leu Phe Asn Gly Thr Thr Ser Pro Ala Asn Gly Gly
 941 435 440 445
 943 Cys Arg Asp Leu Tyr Asp Thr Asn Asp Glu Leu Pro Pro Asp Glu Ser
 944 450 455 460
 946 Thr Gly Ser Ser Thr His Arg Leu Ser His Val Thr Phe Phe Ser Phe
 947 465 470 475 480
 949 Gln Thr Asn Gln Ala Gly Ser Ile Ala Asn Ala Gly Ser Val Pro Thr
 950 485 490 495
 952 Tyr Val Trp Thr Arg Arg Asp Val Asp Leu Asn Asn Thr Ile Thr Pro
 953 500 505 510
 955 Asn Arg Ile Thr Gln Leu Pro Leu Val Lys Ala Ser Ala Pro Val Ser
 956 515 520 525
 958 Gly Thr Thr Val Leu Lys Gly Pro Gly Phe Thr Gly Gly Gly Ile Leu
 959 530 535 540
 961 Arg Arg Thr Thr Asn Gly Thr Phe Gly Thr Leu Arg Val Thr Val Asn
 962 545 550 555 560
 964 Ser Pro Leu Thr Gln Gln Tyr Arg Leu Arg Val Arg Phe Ala Ser Thr
 965 565 570 575
 967 Gly Asn Phe Ser Ile Arg Val Leu Arg Gly Gly val Ser Ile Gly Asp

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003
TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
Output Set: N:\CRF4\10062003\J665460.raw

968	580	585	590	
970	Val Arg Leu Gly Ser Thr Met Asn Arg Gly Gln Glu	Leu Thr Tyr Glu		
971	595	600	605	
973	Ser Phe Phe Thr Arg Glu Phe Thr Thr Gly Pro Phe Asn Pro Pro			
974	610	615	620	
976	Phe Thr Phe Thr Gln Ala Gln Glu Ile Leu Thr Val Asn Ala Glu Gly			
977	625	630	635	640
979	Val Ser Thr Gly Gly Glu Tyr Tyr Ile Asp Arg Ile Glu Ile Val Pro			
980	645	650	655	
982	Val Asn Pro Ala Arg Glu Ala Glu Glu Asp Leu Glu Ala Ala Lys Lys			
983	660	665	670	
985	Ala			
1175	<210> SEQ ID NO: 8			
1176	<211> LENGTH: 673			
1177	<212> TYPE: PRT			
1178	<213> ORGANISM: Artificial sequence			
W-->	1179 <220> FEATURE: <i>Insert</i>			
1179	<223> OTHER INFORMATION: Artificial sequence description: Cry9Cal Glu-164			
Q-->	1181 <400> SEQUENCE: 8			
1182	Met Asn Arg Asn Asn Gln Asn Glu Tyr Glu Ile Ile Asp Ala Pro His			
1183	1	5	10	15
1185	Cys Gly Cys Pro Ser Asp Asp Asp Val Arg Tyr Pro Leu Ala Ser Asp			
1186	20	25	30	
1188	Pro Asn Ala Ala Leu Gln Asn Met Asn Tyr Lys Asp Tyr Leu Gln Met			
1189	35	40	45	
1191	Thr Asp Glu Asp Tyr Thr Asp Ser Tyr Ile Asn Pro Ser Leu Ser Ile			
1192	50	55	60	
1194	Ser Gly Arg Asp Ala Val Gln Thr Ala Leu Thr Val Val Gly Arg Ile			
1195	65	70	75	80
1197	Leu Gly Ala Leu Gly Val Pro Phe Ser Gly Gln Ile Val Ser Phe Tyr			
1198	85	90	95	
1200	Gln Phe Leu Leu Asn Thr Leu Trp Pro Val Asn Asp Thr Ala Ile Trp			
1201	100	105	110	
1203	Glu Ala Phe Met Arg Gln Val Glu Glu Leu Val Asn Gln Gln Ile Thr			
1204	115	120	125	
1206	Glu Phe Ala Arg Asn Gln Ala Leu Ala Arg Leu Gln Gly Leu Gly Asp			
1207	130	135	140	
1209	Ser Phe Asn Val Tyr Gln Arg Ser Leu Gln Asn Trp Leu Ala Asp Arg			
1210	145	150	155	160
1212	Asn Asp Thr Glu Asn Leu Ser Val Val Arg Ala Gln Phe Ile Ala Leu			
1213	165	170	175	
1215	Asp Leu Asp Phe Val Asn Ala Ile Pro Leu Phe Ala Val Asn Gly Gln			
1216	180	185	190	
1218	Gln Val Pro Leu Leu Ser Val Tyr Ala Gln Ala Val Asn Leu His Leu			
1219	195	200	205	
1221	Leu Leu Leu Lys Asp Ala Ser Leu Phe Gly Glu Gly Trp Gly Phe Thr			
1222	210	215	220	
1224	Gln Gly Glu Ile Ser Thr Tyr Tyr Asp Arg Gln Leu Glu Leu Thr Ala			
1225	225	230	235	240

RAW SEQUENCE LISTING DATE: 10/06/2003
PATENT APPLICATION: US/10/665,460 TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
Output Set: N:\CRF4\10062003\J665460.raw

1227 Lys Tyr Thr Asn Tyr Cys Glu Thr Trp Tyr Asn Thr Gly Leu Asp Arg
 1228 245 250 255
 1230 Leu Arg Gly Thr Asn Thr Glu Ser Trp Leu Arg Tyr His Gln Phe Arg
 1231 260 265 270
 1233 Arg Glu Met Thr Leu Val Val Leu Asp Val Val Ala Leu Phe Pro Tyr
 1234 275 280 285
 1236 Tyr Asp Val Arg Leu Tyr Pro Thr Gly Ser Asn Pro Gln Leu Thr Arg
 1237 290 295 300
 1239 Glu Val Tyr Thr Asp Pro Ile Val Phe Asn Pro Pro Ala Asn Val Gly
 1240 305 310 315 320
 1242 Leu Cys Arg Arg Trp Gly Thr Asn Pro Tyr Asn Thr Phe Ser Glu Leu
 1243 325 330 335
 1245 Glu Asn Ala Phe Ile Arg Pro Pro His Leu Phe Asp Arg Leu Asn Ser
 1246 340 345 350
 1248 Leu Thr Ile Ser Ser Asn Arg Phe Pro Val Ser Ser Asn Phe Met Asp
 1249 355 360 365
 1251 Tyr Trp Ser Gly His Thr Leu Arg Arg Ser Tyr Leu Asn Asp Ser Ala
 1252 370 375 380
 1254 Val Gln Glu Asp Ser Tyr Gly Leu Ile Thr Thr Thr Arg Ala Thr Ile
 1255 385 390 395 400
 1257 Asn Pro Gly Val Asp Gly Thr Asn Arg Ile Glu Ser Thr Ala Val Asp
 1258 405 410 415
 1260 Phe Arg Ser Ala Leu Ile Gly Ile Tyr Gly Val Asn Arg Ala Ser Phe
 1261 420 425 430
 1263 Val Pro Gly Gly Leu Phe Asn Gly Thr Thr Ser Pro Ala Asn Gly Gly
 1264 435 440 445
 1266 Cys Arg Asp Leu Tyr Asp Thr Asn Asp Glu Leu Pro Pro Asp Glu Ser
 1267 450 455 460
 1269 Thr Gly Ser Ser Thr His Arg Leu Ser His Val Thr Phe Phe Ser Phe
 1270 465 470 475 480
 1272 Gln Thr Asn Gln Ala Gly Ser Ile Ala Asn Ala Gly Ser Val Pro Thr
 1273 485 490 495
 1275 Tyr Val Trp Thr Arg Arg Asp Val Asp Leu Asn Asn Thr Ile Thr Pro
 1276 500 505 510
 1278 Asn Arg Ile Thr Gln Leu Pro Leu Val Lys Ala Ser Ala Pro Val Ser
 1279 515 520 525
 1281 Gly Thr Thr Val Leu Lys Gly Pro Gly Phe Thr Gly Gly Gly Ile Leu
 1282 530 535 540
 1284 Arg Arg Thr Thr Asn Gly Thr Phe Gly Thr Leu Arg Val Thr Val Asn
 1285 545 550 555 560
 1287 Ser Pro Leu Thr Gln Gln Tyr Arg Leu Arg Val Arg Phe Ala Ser Thr
 1288 565 570 575
 1290 Gly Asn Phe Ser Ile Arg Val Leu Arg Gly Gly Val Ser Ile Gly Asp
 1291 580 585 590
 1293 Val Arg Leu Gly Ser Thr Met Asn Arg Gly Gln Glu Leu Thr Tyr Glu
 1294 595 600 605
 1296 Ser Phe Phe Thr Arg Glu Phe Thr Thr Thr Gly Pro Phe Asn Pro Pro
 1297 610 615 620
 1299 Phe Thr Phe Thr Gln Ala Gln Glu Ile Leu Thr Val Asn Ala Glu Gly

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003
TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
Output Set: N:\CRF4\10062003\J665460.raw

1300 625 630 635 640
 1302 Val Ser Thr Gly Gly Glu Tyr Tyr Ile Asp Arg Ile Glu Ile Val Pro
 1303 645 650 655
 1305 Val Asn Pro Ala Arg Glu Ala Glu Glu Asp Leu Glu Ala Ala Lys Lys
 1306 660 665 670
 1308 Ala
 1498 <210> SEQ ID NO: 10
 1499 <211> LENGTH: 673
 1500 <212> TYPE: PRT
 1501 <213> ORGANISM: Artificial sequence
 W--> 1502 <220> FEATURE: *insert*
 1502 <223> OTHER INFORMATION: Artificial sequence description: Cry9Cai-100%
 O/C 1504 <400> SEQUENCE: 10
 1505 Met Asn Arg Asn Asn Gln Asn Glu Tyr Glu Ile Ile Glu Ala Pro His
 1506 1 5 10 . 15
 1508 Cys Gly Cys Pro Ser Glu Glu Glu Leu Arg Tyr Pro Leu Ala Ser Glu
 1509 20 25 30
 1511 Pro Asn Ala Ala Leu Gln Asn Met Asn Tyr Lys Glu Tyr Leu Gln Met
 1512 35 40 45
 1514 Thr Glu Glu Glu Tyr Thr Glu Ser Tyr Ile Asn Pro Ser Leu Ser Ile
 1515 50 55 60
 1517 Ser Gly Arg Glu Ala Leu Gln Thr Ala Leu Thr Val Ile Arg Arg Ile
 1518 65 70 75 80
 1520 Leu Gly Ala Leu Gly Leu Pro Phe Ser Gly Gln Ile Leu Ser Phe Tyr
 1521 85 90 95
 1523 Gln Phe Leu Leu Asn Thr Leu Phe Pro Leu Asn Glu Thr Ala Ile Phe
 1524 100 105 110
 1526 Glu Ala Phe Met Arg Gln Leu Glu Glu Leu Leu Asn Gln Gln Ile Thr
 1527 115 120 125
 1529 Glu Phe Ala Arg Asn Gln Ala Leu Ala Arg Leu Gln Gly Leu Gly Glu
 1530 130 135 140
 1532 Ser Phe Asn Leu Tyr Gln Arg Ser Leu Gln Asn Phe Leu Ala Glu Arg
 1533 145 150 155 160
 1535 Asn Glu Thr Arg Asn Leu Ser Leu Leu Arg Ala Gln Phe Ile Ala Leu
 1536 165 170 175
 1538 Glu Leu Glu Phe Leu Asn Ala Ile Pro Leu Phe Ala Leu Asn Gly Gln
 1539 180 185 190
 1541 Gln Leu Pro Leu Leu Ser Leu Tyr Ala Gln Ala Leu Asn Leu His Leu
 1542 195 200 205
 1544 Leu Leu Lys Glu Ala Ser Leu Phe Gly Glu Gly Phe Gly Phe Thr
 1545 210 215 220
 1547 Gln Gly Glu Ile Ser Thr Tyr Tyr Glu Arg Gln Leu Glu Leu Thr Ala
 1548 225 230 235 240
 1550 Lys Tyr Thr Asn Tyr Cys Glu Thr Phe Tyr Asn Thr Gly Leu Glu Arg
 1551 245 250 255
 1553 Leu Arg Gly Thr Asn Thr Glu Ser Phe Leu Arg Tyr His Gln Phe Arg
 1554 260 265 270
 1556 Arg Glu Met Thr Leu Leu Leu Glu Leu Leu Ala Leu Phe Pro Tyr
 1557 275 280 285

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003
TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
Output Set: N:\CRF4\10062003\J665460.raw

1559 Tyr Glu Leu Arg Leu Tyr Pro Thr Gly Ser Asn Pro Gln Leu Thr Arg
1560 290 295 300
1562 Glu Leu Tyr Thr Glu Pro Ile Leu Phe Asn Pro Pro Ala Asn Leu Gly
1563 305 310 315 320
1565 Leu Cys Arg Arg Phe Gly Thr Asn Pro Tyr Asn Thr Phe Ser Glu Leu
1566 325 330 335
1568 Glu Asn Ala Phe Ile Arg Pro Pro His Leu Phe Glu Arg Leu Asn Ser
1569 340 345 350
1571 Leu Thr Ile Ser Ser Asn Arg Phe Pro Leu Ser Ser Asn Phe Met Glu
1572 355 360 365
1574 Tyr Phe Ser Gly His Thr Leu Arg Arg Ser Tyr Leu Asn Glu Ser Ala
1575 370 375 380
1577 Leu Gln Glu Glu Ser Tyr Gly Leu Ile Thr Thr Arg Ala Thr Ile
1578 385 390 395 400
1580 Asn Pro Gly Leu Glu Gly Thr Asn Arg Ile Glu Ser Thr Ala Leu Glu
1581 405 410 415
1583 Phe Arg Ser Ala Leu Ile Gly Ile Tyr Gly Leu Asn Arg Ala Ser Phe
1584 420 425 430
1586 Leu Pro Gly Gly Leu Phe Asn Gly Thr Thr Ser Pro Ala Asn Gly Gly
1587 435 440 445
1589 Cys Arg Glu Leu Tyr Glu Thr Asn Glu Glu Leu Pro Pro Glu Glu Ser
1590 450 455 460
1592 Thr Gly Ser Ser Thr His Arg Leu Ser His Leu Thr Phe Phe Ser Phe
1593 465 470 475 480
1595 Gln Thr Asn Gln Ala Gly Ser Ile Ala Asn Ala Gly Ser Leu Pro Thr
1596 485 490 495
1598 Tyr Leu Phe Thr Arg Arg Glu Leu Glu Leu Asn Asn Thr Ile Thr Pro
1599 500 505 510
1601 Asn Arg Ile Thr Gln Leu Pro Leu Leu Lys Ala Ser Ala Pro Leu Ser
1602 515 520 525
1604 Gly Thr Thr Leu Leu Lys Gly Pro Gly Phe Thr Gly Gly Ile Leu
1605 530 535 540
1607 Arg Arg Thr Thr Asn Gly Thr Phe Gly Thr Leu Arg Leu Thr Leu Asn
1608 545 550 555 560
1610 Ser Pro Leu Thr Gln Gln Tyr Arg Leu Arg Leu Arg Phe Ala Ser Thr
1611 565 570 575
1613 Gly Asn Phe Ser Ile Arg Leu Leu Arg Gly Gly Leu Ser Ile Gly Glu
1614 580 585 590
1616 Leu Arg Leu Gly Ser Thr Met Asn Arg Gly Gln Glu Leu Thr Tyr Glu
1617 595 600 605
1619 Ser Phe Phe Thr Arg Glu Phe Thr Thr Gly Pro Phe Asn Pro Pro
1620 610 615 620
1622 Phe Thr Phe Thr Gln Ala Gln Glu Ile Leu Thr Leu Asn Ala Glu Gly
1623 625 630 635 640
1625 Leu Ser Thr Gly Gly Glu Tyr Tyr Ile Glu Arg Ile Glu Ile Leu Pro
1626 645 650 655
1628 Leu Asn Pro Ala Arg Glu Ala Glu Glu Glu Leu Glu Ala Ala Lys Lys
1629 660 665 670
1631 Ala

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003
TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
Output Set: N:\CRF4\10062003\J665460.raw

1821 <210> SEQ ID NO: 12
 1822 <211> LENGTH: 673
 1823 <212> TYPE: PRT
 1824 <213> ORGANISM: Artificial sequence
 W--> 1825 <220> FEATURE: *insert*
 1825 <223> OTHER INFORMATION: Artificial sequence description: Cry9Cai-25%
 EOK 1827 <400> SEQUENCE: 12
 1828 Met Asn Arg Asn Asn Gln Asn Glu Tyr Glu Ile Ile Asp Ala Pro His
 1829 1 5 10 15
 1831 Cys Gly Cys Pro Ser Asp Asp Asp Val Arg Tyr Pro Leu Ala Ser Asp
 1832 20 25 30
 1834 Pro Asn Ala Ala Leu Gln Asn Met Asn Tyr Lys Asp Tyr Leu Gln Met
 1835 35 40 45
 1837 Thr Asp Glu Asp Tyr Thr Asp Ser Tyr Ile Asn Pro Ser Leu Ser Ile
 1838 50 55 60
 1840 Ser Gly Arg Glu Ala Leu Gln Thr Ala Leu Thr Leu Leu Gly Arg Ile
 1841 65 70 75 80
 1843 Leu Gly Ala Leu Gly Val Pro Phe Ser Gly Gln Ile Leu Ser Phe Tyr
 1844 85 90 95
 1846 Gln Phe Leu Leu Asn Thr Leu Trp Pro Val Asn Asp Thr Ala Ile Trp
 1847 100 105 110
 1849 Glu Ala Phe Met Arg Gln Val Glu Glu Leu Val Asn Gln Gln Ile Thr
 1850 115 120 125
 1852 Glu Phe Ala Arg Asn Gln Ala Leu Ala Arg Leu Gln Gly Leu Gly Glu
 1853 130 135 140
 1855 Ser Phe Asn Val Tyr Gln Arg Ser Leu Gln Asn Trp Leu Ala Asp Arg
 1856 145 150 155 160
 1858 Asn Asp Thr Arg Asn Leu Ser Leu Leu Arg Ala Gln Phe Ile Ala Leu
 1859 165 170 175
 1861 Asp Leu Asp Phe Val Asn Ala Ile Pro Leu Phe Ala Val Asn Gly Gln
 1862 180 185 190
 1864 Gln Val Pro Leu Leu Ser Val Tyr Ala Gln Ala Leu Asn Leu His Leu
 1865 195 200 205
 1867 Leu Leu Leu Lys Glu Ala Ser Leu Phe Gly Glu Gly Trp Gly Phe Thr
 1868 210 215 220
 1870 Gln Gly Glu Ile Ser Thr Tyr Tyr Glu Arg Gln Leu Glu Leu Thr Ala
 1871 225 230 235 240
 1873 Lys Tyr Thr Asn Tyr Cys Glu Thr Trp Tyr Asn Thr Gly Leu Glu Arg
 1874 245 250 255
 1876 Leu Arg Gly Thr Asn Thr Glu Ser Phe Leu Arg Tyr His Gln Phe Arg
 1877 260 265 270
 1879 Arg Glu Met Thr Leu Val Val Leu Asp Val Val Ala Leu Phe Pro Tyr
 1880 275 280 285
 1882 Tyr Asp Val Arg Leu Tyr Pro Thr Gly Ser Asn Pro Gln Leu Thr Arg
 1883 290 295 300
 1885 Glu Val Tyr Thr Asp Pro Ile Val Phe Asn Pro Pro Ala Asn Leu Gly
 1886 305 310 315 320
 1888 Leu Cys Arg Arg Trp Gly Thr Asn Pro Tyr Asn Thr Phe Ser Glu Leu
 1889 325 330 335

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/665,460
 DATE: 10/06/2003
 TIME: 13:54:56
 Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
 Output Set: N:\CRF4\10062003\J665460.raw

1891 Glu Asn Ala Phe Ile Arg Pro Pro His Leu Phe Glu Arg Leu Asn Ser
 1892 340 345 350
 1894 Leu Thr Ile Ser Ser Asn Arg Phe Pro Val Ser Ser Asn Phe Met Glu
 1895 355 360 365
 1897 Tyr Phe Ser Gly His Thr Leu Arg Arg Ser Tyr Leu Asn Asp Ser Ala
 1898 370 375 380
 1900 Val Gln Glu Asp Ser Tyr Gly Leu Ile Thr Thr Arg Ala Thr Ile
 1901 385 390 395 400
 1903 Asn Pro Gly Val Asp Gly Thr Asn Arg Ile Glu Ser Thr Ala Val Asp
 1904 405 410 415
 1906 Phe Arg Ser Ala Leu Ile Gly Ile Tyr Gly Val Asn Arg Ala Ser Phe
 1907 420 425 430
 1909 Val Pro Gly Gly Leu Phe Asn Gly Thr Thr Ser Pro Ala Asn Gly Gly
 1910 435 440 445
 1912 Cys Arg Asp Leu Tyr Asp Thr Asn Asp Glu Leu Pro Pro Asp Glu Ser
 1913 450 455 460
 1915 Thr Gly Ser Ser Thr His Arg Leu Ser His Leu Thr Phe Phe Ser Phe
 1916 465 470 475 480
 1918 Gln Thr Asn Gln Ala Gly Ser Ile Ala Asn Ala Gly Ser Val Pro Thr
 1919 485 490 495
 1921 Tyr Val Trp Thr Arg Arg Asp Val Asp Leu Asn Asn Thr Ile Thr Pro
 1922 500 505 510
 1924 Asn Arg Ile Thr Gln Leu Pro Leu Val Lys Ala Ser Ala Pro Val Ser
 1925 515 520 525
 1927 Gly Thr Thr Val Leu Lys Gly Pro Gly Phe Thr Gly Gly Gly Ile Leu
 1928 530 535 540
 1930 Arg Arg Thr Thr Asn Gly Thr Phe Gly Thr Leu Arg Val Thr Val Asn
 1931 545 550 555 560
 1933 Ser Pro Leu Thr Gln Gln Tyr Arg Leu Arg Leu Arg Phe Ala Ser Thr
 1934 565 570 575
 1936 Gly Asn Phe Ser Ile Arg Val Leu Arg Gly Gly Val Ser Ile Gly Asp
 1937 580 585 590
 1939 Val Arg Leu Gly Ser Thr Met Asn Arg Gly Gln Glu Leu Thr Tyr Glu
 1940 595 600 605
 1942 Ser Phe Phe Thr Arg Glu Phe Thr Thr Gly Pro Phe Asn Pro Pro
 1943 610 615 620
 1945 Phe Thr Phe Thr Gln Ala Gln Glu Ile Leu Thr Val Asn Ala Glu Gly
 1946 625 630 635 640
 1948 Val Ser Thr Gly Gly Glu Tyr Tyr Ile Asp Arg Ile Glu Ile Val Pro
 1949 645 650 655
 1951 Val Asn Pro Ala Arg Glu Ala Glu Glu Asp Leu Glu Ala Ala Lys Lys
 1952 660 665 670
 1954 Ala
 3841 <210> SEQ ID NO: 160
 3842 <211> LENGTH: 30
 3843 <212> TYPE: DNA
 3844 <213> ORGANISM: Artificial sequence
 3846 <220> FEATURE:
 3847 <223> OTHER INFORMATION: Artificial sequence description:

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003

TIME: 13:54:56

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
Output Set: N:\CRF4\10062003\J665460.raw

3848 oligonucleotide 119

3850 <400> SEQUENCE: 160

3851 cgagaagcgg aagaggaatt agaagcggcg

30

E--> 3852 ①

delete

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/665,460

DATE: 10/06/2003

TIME: 13:54:57

Input Set : A:\#458171 v1 - A35992-PCT-USA-A Sequence Listing.txt
Output Set: N:\CRF4\10062003\J665460.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:16 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:19 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:533 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:535 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:4
L:856 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6
L:858 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:6
L:1179 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:1181 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:8
L:1502 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10
L:1504 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:10
L:1825 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12
L:1827 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:12
L:3852 M:254 E: No. of Bases conflict, this line has no nucleotides.